

March 13, 2018

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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *In re Connect America Fund*, WC Docket No. 10-90, AU Docket No. 17-182

Dear Ms. Dortch:

On March 9, 2018, Dave Allen, Vice President, Regulatory & Gas Operations and Matt Van Alst, Network Architect, Midwest Energy & Communications; Andy Burger, General Manager, Co-Mo Connect; Rett Walters, Director of Information Technology, Co-Mo Electric Cooperative; Randy Klindt, General Manager, Steven Karp, Senior Network Engineer, William Hyatt, Network Engineer, OzarksGo; Sean Vanslyke, General Manager and Loyd Rice, Administrator of Engineering Services, SEMO Electric Cooperative; Duane Highley, President and CEO, Arkansas Electric Cooperatives, Inc.; Jason Strong, Manager of Engineering, North Arkansas Electric Cooperative Inc.; David Girvan, Chief Operating Officer, United Electric Cooperative; Brian O'Hara, Regulatory Issues Director, National Rural Electric Cooperative Association; Brett Kilbourne, Vice President Policy and General Counsel, Utilities Technology Council; (collectively "Rural Electric Cooperatives") and the undersigned of Jenner & Block LLP met with Cathy Zima, Suzanne Yelen, Stephen Wang, and Alec MacDonell of the Wireline Competition Bureau to discuss the Rural Electric Cooperatives' performance measures proposal for recipients of Connect America Fund ("CAF") support.¹

In the meeting, we encouraged the Commission to adopt performance measures that will encourage compliance with the rules and guard against waste, fraud, and abuse while also recognizing certain technical issues that may impact speed test results.² To ensure a fair and equitable process, we urged the Commission not to penalize providers for variations in testing, inadequate customer equipment, or factors like data overhead, which can give the appearance of lower speeds even on networks that are properly engineered. Data overhead and the frame size

¹ See Comments of the Rural Electric Cooperatives, WC Docket No. 10-90 (Dec. 6, 2017) ("Comments"); *Comment Sought on Performance Measures for Connect America High-Cost Universal Service Support Recipients*, Public Notice, WC Docket No. 10-90, DA 17-1085, 32 FCC Rcd 9321 (2017).

² See generally Comments.

involved in measurement reduces the actual data throughput of 1 Gigabit service and therefore can have adverse impacts on speeds during testing.³ This means that even a perfectly-engineered Gigabit network would ordinarily test around 940 Mbps.⁴

The Commission should be mindful of these technical limitations in establishing the CAF performance measures, particularly for providers deploying 1 Gigabit networks. The Rural Electric Cooperatives' proposal of requiring providers to meet 90% of the speed and latency requirement at least 95% of the time ensures that providers are not penalized due to technical issues outside of their control.⁵ Providers that do not meet this standard will have a graduated and predictable reduction of support.⁶ Our proposal is not only fair and equitable but also prevents unjustly enriching providers that fail to satisfy their CAF public interest obligations.

In addition, we encouraged the Commission to require testing within the CAF recipient's network as providers cannot control or necessarily prevent congestion outside of their network. If the Commission nonetheless requires CAF performance measurements be taken from a customer's premise to an Internet Exchange Point, we urged the Commission to include smaller Internet Exchange Points in cities such as Kansas City, Missouri. Requiring smaller providers in rural areas to unnecessarily route traffic to the largest Internet Exchange Points for CAF testing purposes will significantly increase compliance burdens and costs.

Finally, we urged the Commission to adopt its original proposal and require speed testing during peak times between 7:00pm and 11:00pm.⁷ Testing during peak times is important because the Commission must ensure that the providers meet their performance requirements when consumers are actually using the service. The Rural Electric Cooperatives are concerned that USTelecom's proposal, which would permit testing over an 18-hour span,⁸ could open the

³ See Comments at 12 & nn.46-47 (citing *Are You Gigabit Ready?*, Ookla: SpeedTest, <http://www.speedtest.net/insights/blog/are-you-gigabitready-17-tips-to-help/> (n.d.)).

⁴ See *id.* at 12 n.47 (citing *What Is the Theoretical Maximum Throughput of a Gigabit Ethernet Interface?*, NetApp: Knowledgebase https://kb.netapp.com/app/answers/answer_view/a_id/1003832 (n.d.)). Although Gigabit service can sometimes be "overprovisioned" at 1.05 Gbps to address these testing issues, customer premises equipment is often limited to 1 Gbps interfaces, which would not allow for overprovisioning of service. And, as a practical matter, customer premises equipment would need 10 Gbps interfaces to allow for such overprovisioning of service. This equipment is not yet readily available and, even where it is available, it is expensive to deploy.

⁵ See Comments at 9-15.

⁶ Under our formula, 2.0% of a provider's CAF funds will be withheld for every percentage point of the required speed (below 90%) that the provider fails to deliver for 95% of measurement. See Comments at 12-15.

⁷ See Comments at 1-2 & n.4 (citing *Wireline Competition Bureau et al. Seek Comment on Proposed Methodology for Connect America High-Cost Universal Service Support Recipients to Measure & Report Speed & Latency Performance to Fixed Locations*, Public Notice, 29 FCC Rcd 12,623, 12,625 ¶9 (2014)).

⁸ See Letter from Kevin G. Rupy, Vice President, Law & Policy, USTelecom, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90, at 4 (May 23, 2017).

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door to abuse, as it would allow providers to test when few users are online. Testing during such low-usage times could provide the Commission with a distorted and potentially misleading picture of network performance. Indeed, a service that functions only when consumers are not using it is of little value to consumers or the communities in which they live.

Please contact the undersigned if you have any questions.

Sincerely,

/s/ Rebekah P. Goodheart

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cc: Cathy Zima
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